



Visual WWW, Inc.
115 NE 39th Avenue, Hillsboro, OR 97124
phone: 503.730.4556 | fax: 503.715.4888
info@evisualwww.com | www.evisualwww.com

February 11, 2008

“Visual WWW Open Source Training Pack”

Dr. Ernest Bonat, Ph.D.



Visual WWW, Inc.

‘Created by Developers for Developers’

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1. Overview

Open Source Technology LAMP (Linux/Apache/MySQL/PHP) is quickly becoming a powerful software tool for business application development. More and more mainstream business companies and government organizations are using LAMP as an alternative to expensive traditional software infrastructure because of its superior performance, reliability, ease-of-deployment and significant system and development cost savings.

MySQL server has proved to be the world’s most popular open source database today. MySQL allows delivering scalable, reliable and high performance database applications for small to medium-sized businesses. The combination of MySQL 5.0 and VB.NET 2008 Express Edition allows Windows programmers to develop complete database business applications without any software licensing fee. This intense MySQL 5.0/VB.NET 2008 course will provide you with the necessary programming knowledge, skills and techniques to develop robust-flexible Windows applications.

2. Audience

This course has been implemented for beginner Windows Application Developers. This course represents a very good introduction for learning how to design, develop and deploy Client/Server Windows applications using MySQL 5.0/VB.NET 2008. It covers the latest new features of MySQL 5.0 like stored procedures, functions, triggers and views database objects development. Advanced OOP and N-tiers applications design and development will be applied using VB.NET 2008.

3. Prerequisites

- Basic experience of database windows applications development using VB.NET programming language
- Basic programming of SQL:2003 language would be very helpful
- Working development experience with MySQL open source database server and Toad for MySQL are not required



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4. Code

VWWWOS01.

5. Level

Basic.

6. Delivery

Classroom or Online.

7. Duration

Two workshops (three hours each) a week for a month. Course duration is based on customer requirements and necessities. Customers can determine the right schedule based on their needs. Visual WWW will be able to match any class duration period, depending on customer requirements.

8. Type

Public, private or on-site. Depending on the client requirements (location, number of students, etc) and Visual WWW availability this will be defined in the first contact meeting.

9. Cost

\$1995.00 plus tax if necessary. Discounts are available for groups and corporate training.

10. Registration

Online: www.evisualwww.com/project_course.php

E-mail: info@evisualwww.com

Phone: 503.730.4556

Fax: 503:715.4888 (send a hard copy of your registration form. Please don't forget to include Visa, MasterCard, American Express number or purchase order)

Address: Visual WWW, Inc.
Professional Training and Mentoring
115 NE 39th Avenue
Hillsboro, OR 97124-6863
USA

11. Software and Materials

A Laptop with:

- MS Windows XP Professional or Vista Premium



- MS Office 2003 Professional or highest

A complete CD course will be provided with the following free software and materials:

- MS Visual Basic 2008 Express Edition
- MS Visual Basic 2008 sample projects, tutorials, papers and case studies
- MySQL Server 5.0.45 or highest
- MySQL Connector/NET 5.0.8.1 or highest
- Toad for MySQL 4.0 or highest
- WinZip 11.0 or WinRAR 3.71
- Adobe Acrobat Reader 7.0 or highest
- Course text book and MySQL 5.0/VB.NET 2008 sample projects

12. Module 1 “Database Design and Implementation”

- Workshop 1. Introduction to relational database designs. Database definition based on business rules requirements. Database design and modeling. Database normalization rules. Database ER-Diagrams. Introduction to Toad for MySQL 4.0 as database management GUI tool. Assign 1.
- Workshop 2. Implementing and managing MySQL databases, tables, columns and indexes. MySQL Views basics and development. Advanced Toad for MySQL 4.0. Manipulating and retrieving data in a MySQL Database. Exporting, copying, and importing MySQL data using Toad for MySQL 4.0. Assign 2.
- Workshop 3. SQL:2003 programming basics and advanced. Literal string and numeric values, data types, operators, expressions, control flow functions, string functions, numeric functions, full-text search functions, cast and convert functions. Select, Insert, Update and Delete SQL statements. Subqueries implementation and optimization. Best practice of SQL:2003 programming optimization. Assign 3.
- Workshop 4. MySQL stored procedures basis and advanced development. Create, Alter, Drop and Call general statements. Variables, parameters, block structure, cursors, conditions and handlers, database transactions, stored procedures optimization and best practices. Database access tier fundamentals and organization. Moving client’s business requirements to the database tier. Assign 4.
- Workshop 5. MySQL stored functions and triggers basis and advanced development. Developing and calling stored functions. Creating and using triggers. Trigger types and their overhead. Stored functions and triggers optimization and best practices. Assign 5.

13. Module 2 “Advanced VB.NET Programming Language”

- Workshop 1. Introduction to Windows application project design and implementation using VB.NET 2008 Integrated-development environment (IDE). Application Windows configuration settings. Advanced Windows GUI design and implementation. Advanced Windows Forms application development and configuration settings. MDI and Tabbed Windows applications design and organization. Assign 1.
- Workshop 2. Class and Structure design and implementation. Advanced Object-Oriented Programming (OOP). Objects, Component and Namespaces design and development. Advanced collection classes. Advanced object serialization and deserialization. Assign 2.
- Workshop 3. Advanced Subroutine and Function procedures design and organization. Design and development class DLL libraries. Designing and building Business Logic and Data Access components. N-tiers database Windows applications design, organization and implementation. Best practice of multitier Windows applications



design and development. Assign 3.

- Workshop 4. Understanding of Garbage Collector. Managed and Unmanaged code in .NET Framework. Generic disposable class implementation Understanding and implementation of the Using statement. Advanced VB.NET code organization using Try...Catch and Using statement. Assign 4.
- Workshop 5. Advanced ADO.NET programming. Advanced data manipulation and retrieval using ADO.NET. ADO.NET and XML. Reading and writing XML documents. Assign 5.

14. Module 3 “Developing Database Windows Applications using MySQL/VB.NET”

- Workshop 1. Advanced ADO.NET and MySQL Connector/.NET. MySQL client and types Namespaces. Main MySQL client Namespace classes. Define and store MySQL Connection String. MySQL/VB.NET solution project design and organization. Assign 1.
- Workshop 2. MySQL data loading with lookup tables. Load and search MySQL data using dynamic SQL and stored procedures. Load a single master and multiple MySQL records using stored procedures. Advanced MySQL data loading and navigation using DataGridView, ListView and TreeView controls. Assign 2.
- Workshop 3. Advanced MySQL data validation. Insert, update and delete MySQL data using dynamic SQL and stored procedures. MySQL data transactions using dynamic SQL and stored procedures. Best practices of MySQL Connector/.NET for retrieving, inserting, updating and deleting records. Assign 3.
- Workshop 4. Data transfer between Windows Forms. Drag and drop data transfer. Asynchronous database operations in MySQL server. MySQL data transfer and migration to Excel spreadsheet and XML files. Best practices of MySQL data transfer in Windows business application development. Assign 4.
- Workshop 5. VB.NET 2008 source code analysis, review and understanding of the Magazine Publisher Windows database application. MySQL/VB.NET application deployment and maintenance. Best practices of MySQL/VB.NET Windows business application development. Assign 5.

15. Instructor: Dr. Ernest Bonat, Ph.D.

For information about the instructor go to www.evisualwww.com/project_aboutus.php and click on Dr. Ernest Bonat, Ph.D. link.

Note: Course content, cost, instructor and availability are subject to change without prior notice.